Luck, Rationality, and Explanation: A Reply to Elga's "Lucky to Be Rational"

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I Introduction

What is the epistemic significance of discovering that one of your beliefs depends on an irrelevant causal factor?

Suppose that you have a relatively high degree of belief in some proposition. Suppose that you then come to learn that your belief was (in part) caused by an irrelevant factor, a factor that does not bear on the truth of the proposition or on your possession of evidence for it.[1] Should you lower your degree of belief in the proposition?

One might think that the answer is clearly yes. If one of your beliefs is based on an irrelevant factor, it does not solely reflect the impact of evidence. And so, the thought goes, you ought not to believe it, or at least, you ought not to believe it as strongly.

In "Lucky to be Rational," Adam Elga defends a very different view.[2] To the question of whether you should lower your degree of belief, Elga's answer is: It depends. Each of us possesses standards of reasoning – beliefs about which forms of reasoning are good or bad. If what you discover is that the irrelevant factor caused you to fail to live up to your standards of reasoning, you should lower your degree of belief. If not, not.[3] So long as you have been living up to your standards, you need not lower your degree of

[1] This is a rough characterization of the appropriate notion of relevance. The appropriate notion is difficult to define precisely, though the distinction is clear in practice.
[2] Also see White (2010) for a careful and illuminating discussion of this issue.
[3] More generally, when you discover the existence of an irrelevant factor of one of your beliefs, how much you should lower your degree of confidence in the belief depends on the degree in which you are justified in believing that you failed to live up to your standards of reasoning. Moreover, if you justifiably but falsely believe that you failed to live up to your standards, you should also presumably lower your degree of belief. I'll leave these modifications implicit in what follows.

belief. This is so even if you discover that your acceptance of the very standards in question is due to the irrelevant factor.[4]

Elga recognizes a potential problem for his view – the discovery of an irrelevant causal factor can generate an 'unsettling feeling' in us, even in cases where we have been living up to our standards of reasoning. In defense of his view, he presents a diagnosis of this feeling. He argues that the discovery of an irrelevant factor makes salient a very general kind of skeptical worry. The force of this skeptical worry does not turn on the existence of an irrelevant factor. So, Elga claims, the presence of an unsettling feeling does not reflect any new rational pressure to lower one's degree of belief. In this way, Elga hopes to explain away the counterintuitive nature of his view.

Elga's view is striking and his discussion is compelling. The purpose of this short paper is to argue that Elga's main claims are mistaken. In what follows, I raise three related issues. My primary conclusion is that Elga overlooks an important connection between justification and explanation. Once this connection is appreciated, a serious problem with Elga's view becomes apparent. In many cases, the discovery of an irrelevant factor should lead us to lower our degree of belief, even when we have been living up to our standards of reasoning.

II The Significance of Elga's View

The first issue that I'd like to raise is not a criticism or objection. It concerns the significance of Elga's view for familiar philosophical disputes.

[4] Even on Elga's view, you can have reason to give up some of your standards of reasoning when you discover the existence of an irrelevant causal factor. This can occur if you discover that your acceptance of some of your standards is in conflict with other (perhaps more fundamental) standards.

Elga's discussion is primarily focused on (more-or-less) everyday cases of reasoning. It's worth noting that his claims also have significant ramifications for important philosophical debates.

Consider the philosophy of mathematics and in particular, the debate over mathematical Platonism. One influential argument against Platonism is the so-called Benacerraf-Field argument.[5] Very roughly, the argument goes something like this: If mathematical Platonism is true, there is no way to explain how it is that we are reliable about mathematics. In particular, given that mathematical entities are acausal, aspatio-temporal, and mind- and language-independent, there is no explanation of how it is that we by-and-large believe mathematical truths and disbelieve mathematical falsehoods. According to Platonism, then, our mathematical practices are due to irrelevant factors. Our reliability about mathematics is purely a matter of luck. This conclusion – it is claimed – poses a significant problem for Platonism.

Related arguments are familiar from discussions of the nature of morality. According to one version of Mackie's queerness argument, moral realism faces difficulty in accounting for our reliability about moral truths, since if objective values exist, they are peculiar entities outside of our ken.[6] Similarly, Street argues that given that our evaluative faculties are the product of evolution, moral realism cannot explain how our moral beliefs match the objective moral truths.[7] Each of these arguments attempts to show that according to moral realism, our reliability about morality is purely an accident. This conclusion is then claimed to pose a significant problem for moral realism.

[5] See the introduction and title essay of Field (1989). See Benacerraf (1973) for an important precursor. See Schechter (2010) for a discussion of how best to understand the argument.
[6] See Mackie (1977). Mackie's argument is often interpreted as depending purely on metaphysical considerations. But in his discussion, he emphasizes that the argument concerns our moral knowledge.
[7] See Street (2006).

Epistemological arguments such as these provide some of the most influential considerations against realist and objectivist views of mathematics, morality, modality, and other domains.[8]

What is worth noting is that if Elga is right, none of these arguments is any good. Consider the Benacerraf-Field argument. On Elga's view, so long as our mathematical practices conform to our standards of reasoning, any commitment to the view that it was a matter of luck that our mathematical practices are reliable should not be worrying. The Platonist can quite happily accept that her reliability is purely a matter of luck. She need not reduce her degree of confidence in her belief that she is reliable, in Platonism, or in her first-order mathematical views. On Elga's view, then, the Benacerraf-Field argument has no force. And an analogous result applies to the cases of morality, modality, and other domains. On Elga's view, such epistemological arguments can simply be dismissed.

This is not (yet) an objection to Elga's view. It is, however, a significant ramification. It is also a reason for caution. Many find the Benacerraf-Field argument and related arguments intuitively compelling. We would need very good reason to dismiss all such arguments as worthless.

III Living Up to Your Standards

The second issue that I'd like to raise concerns Elga's claim that upon discovering the existence of an irrelevant causal factor, so long as your reasoning did not violate your standards of reasoning, you need not lower your degree of belief.

[8] See Peacocke (1999) for a discussion of the general 'Integration Challenge' of reconciling the metaphysics and epistemology of a domain. In that work, Peacocke presents versions of this challenge for many domains, including our knowledge of the past, our knowledge of modality, and self-knowledge.

In defending this claim, Elga contrasts two kinds of cases where one of your beliefs depends on an irrelevant factor. First, there are cases in which the irrelevant factor led you to violate your standards of reasoning in forming the belief. Second, there are cases in which the irrelevant factor led you to change your standards of reasoning. The formation of the belief did not violate your standards of reasoning. Instead, the irrelevant factor led you to adopt the very standards in question.

If I discover that I'm in the first kind of case, Elga says, I should lower my degree of belief. This is because what I've discovered is a violation of my standards of reasoning. I should go back and fix my mistake.[9] If I discover that I'm in the second kind of case, however, I need not lower my degree of belief. I have not discovered any mistake that I've made in my reasoning.

There is a third kind of case worth considering. In the third kind of case, (i) my belief depends on an irrelevant causal factor, (ii) my reasoning was fully in accord with my standards, but (iii) my standards require that when I discover the existence of the irrelevant factor, I reduce my degree of belief. In other words, my standards treat the discovery of the influence as *new information* about the world or about myself. This new information is treated as relevant to my degree of belief. In such a case, I was not violating my standards in reasoning as I did earlier. But I would be violating my standards in not now modifying my degree of belief.[10]

[9] Elga ought to slightly amend his view here. Presumably, it is not the *discovery* that a thinker failed to live up to his standards that is of central importance. Rather, it's the *fact* that he violated his standards; the thinker should have had a lower degree of belief to begin with. Granted, when someone comes to find out that he has reasoned in a problematic way, he should update his degree of belief. And even if a thinker has a justified but false belief that he's violated his standards, he should lower his degree of belief. But these phenomena are both due to the more fundamental normative fact that thinkers should not violate their standards.

[10] For completeness, it is worth mentioning a fourth kind of case. In such a case, (i) my belief depends on an irrelevant causal factor, (ii) my reasoning violated my standards, but (iii) my standards allow me not to

So far, this is just to describe a formal possibility. Certainly, there could be standards of reasoning that are like this. But, presumably, Elga will claim that *our* standards are not like this and, moreover, that standards like this are not *good* standards to adopt. If this is what Elga would like to say, I'd like to hear more about why such standards are no good. It is not at all obvious that such standards are problematic.

But I don't merely want to claim that this third kind of case is a formal possibility. I also want to claim that there is reason to think that some of our actual standards of reasoning fall in this class.

To support this claim, let me make a very general claim about theory choice: Certain phenomena are striking in that they seem to "call out" for explanation. At least ceteris paribus, a theory that provides an explanation of a striking phenomenon is better than one that treats it as merely accidental. It is a cost of a theory if it treats striking phenomena (within the domain of the theory) as accidental or otherwise unexplained.

This is a claim about some of our most general standards of explanatory reasoning. Presumably, this claim needs to be tightened in several ways, but it is extremely plausible that something in the ballpark is true.

It is difficult, of course, to provide a general account of strikingness.[11] But we are adept at identifying striking phenomena. One striking phenomenon is that our reasoning is generally pretty good – that is, we are more-or-less reliable about very many domains. Indeed, for each of these many domains, it is striking that we are reliable about it.

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reduce my degree of belief when I discover the existence of the irrelevant factor. Such standards do not care how you got to your current set of beliefs. Versions of Harman's "general conservatism" might have this structure. See Harman (1995), page 27.

[11] See Horwich (1982) and Schlesinger (1991) for attempts. I take it that two most promising suggestions are the following: (i) A phenomenon is striking if it can be described using a simple rule; (ii) A phenomenon is striking if there is a salient theory that would predict or explain it. These two proposals may be related. If a phenomenon can be described by a simple rule, there may be a salient explanation of how it arose – namely, some agent may have intentionally caused the rule to be instantiated.

Suppose, then, that we discover that our reasoning about a domain reflects the influence of an irrelevant factor. In particular, suppose we discover that our reliability about the domain is (at best) accidental. Given my claim about theory choice, this information generates a tension within our overall view. It generates pressure to alleviate the tension by doing at least one of the following three things: (i) giving up on the claim that our reliability is accidental; (ii) giving up on the claim that our reliability is striking; or (iii) giving up on the claim that we are, indeed, reliable. In many cases, there will be some pressure to do all three. In particular, there will be some pressure to lower our degree of belief in our reliability about the domain.[12] Correlatively, there will be pressure to lower our degree of confidence in our first-order beliefs.

Why do I say that there is pressure to lower our degree of belief in our reliability in *many* cases? Why not say this about *all* cases? The motivation for the hedge stems from a rather puzzling line of thought. There is some reason to think that we cannot rationally have less than full confidence in our most fundamental rules of reasoning. The line of thought is as follows: We could only rationally have less than full confidence in our fundamental rules if our fundamental rules recommended that we not fully trust them (given the appropriate inputs). After all, it is our rules that tell us what degrees of belief to have. But it would be impossible to follow rules that tell us not to fully trust themselves. At the very least, it would be impossible to follow such rules rationally. On pain of irrationality, then, we must be fully confident in our most fundamental rules.[13]

[12] What I just have done, in effect, is to state a general form of the Benacerraf-Field argument.
[13] See Lewis (1971), Field (2000), and Elga (2010) for versions of this argument. In more recent work, Field has rejected the argument.

I do not want to endorse this line of thought – it leads to some extremely counterintuitive conclusions.[14] For example, it suggests that we cannot rationally debate the correctness of our fundamental deductive and ampliative rules, and that seems wrong. Yet, the argument is difficult to reject. So I'd like to stay neutral here on the question of whether we can rationally have less than full confidence in our most fundamental rules of reasoning. If we cannot, then there are cases in which we cannot rationally doubt our reliability, even when we discover that our reliability is at best accidental.[15] Any tension generated by the discovery of an irrelevant factor can only be alleviated by reducing our confidence in the claim that our reliability is accidental or in the claim that our reliability is striking. (Or it may simply be swallowed.)

This hedge aside, the main point is simply this: There are general considerations having to do with the nature of explanation and theory choice that suggest that we accept very general standards of reasoning that fit what I called the third kind of case. Our standards at least sometimes treat the discovery of an irrelevant causal factor of a belief as new information that tells against the belief in question. Discovering the existence of an irrelevant causal factor can serve to undermine a belief, even when our earlier reasoning was in accord with our standards of reasoning. And even when such a discovery does not serve to undermine the belief in question, it still can have a significant epistemic effect on our overall package of beliefs.

[14] See Schechter (forthcoming) for a brief discussion of some of them.
[15] Nagel (1997) argues on other grounds that basic logic and mathematics is immune from doubt. If he's right, this would present another motivation for thinking that in certain cases, we cannot rationally reduce belief in our reliability.

IV The Diagnosis

The third and final issue that I'd like to raise concerns Elga's diagnosis of the unsettling feeling we get when we discover the existence of irrelevant causal factors even though we've been living up to our own standards of reasoning.

Elga's diagnosis is that when we discover the existence of an irrelevant influence, this makes salient the existence of *multiple coherent standards* of reasoning that are incompatible with our own. Given that we have *no independent grounds* for our standards, in line with a familiar kind of skeptical argument, we're tempted to conclude that we have no grounds at all for thinking that our standards are correct. On Elga's view, then, discovering that some of our standards depend on an irrelevant causal factor does not generate any new pressure to give up the standards. It merely makes salient a familiar sort of skeptical worry.

There is reason to be wary of this diagnosis.

Consider the following sort of case: Suppose I believe that there are very many sets of standards concerning some domain that are internally coherent. Exactly one of these sets is correct and the others are not. Suppose I further believe that God implanted in me the standards I accept. Now contrast two ways of filling out the story. In the first, I believe that God implanted me with the correct standards for some reason – say, he's epistemologically benevolent. In the second, I instead believe that God flipped a coin many times to determine which of the many internally coherent standards to implant.[16]

I maintain that it would be a lot less unsettling to be in the first scenario than to be in the second. This is so despite the fact that in both scenarios, I am aware that there are

[16] Here is a second pair of contrasting cases: Suppose that I believe that evolution implanted in me the standards that I accept. In the first case, I believe that there was selection pressure to have the correct standards. In the second case, I believe that there was no such pressure.

multiple coherent standards of belief. Moreover, in neither scenario do I to possess any independent reason to believe my standards are correct. Elga's diagnosis cannot explain this difference in my attitudes.[17]

What is the explanation of the difference in my attitudes? I suggest that it does not primarily have to do with considerations of *independence*. Rather, it has to do with considerations of *explanation*. In the first scenario, I possess an explanation of why I have the correct standards. This may be an explanation only by my lights – it may fail to be dialectically effective against an agnostic or skeptic. But it is reassuring nonetheless. In the second scenario, I lack any such explanation.

The moral, I suggest, is that part of what's unsettling about discovering an irrelevant influence is that it leads us to recognize that we lack an explanation of why it is that we've gotten it right. Moreover, the irrelevant influence suggests there is no explanation to be had. This is profoundly discomforting.

Notice that this source of discomfort is not closely related to skepticism. The pressure is not to refute a skeptic or to find some fully independent reason to accept one of our fundamental beliefs. Rather, the pressure is the much more mundane pressure to possess explanations of striking phenomena that are good by our own lights.

V Conclusion

Let's take stock. Suppose a thinker discovers that her standards of reasoning about some domain are due to some irrelevant factor. This raises the worry that there is no

[17] Elga's diagnosis also cannot explain why we feel unsettled even in cases where we find it difficult to imagine that there are any alternative coherent systems. Consider, for instance, the reaction of someone who discovers that his logical or mathematical practices are solely due to irrelevant factors. Such a thinker will feel unsettled even if he finds alternative systems unimaginable.

explanation of why it is that the relevant standards of reasoning are reliable. It generates pressure to reduce her degree of belief in her reliability. In ordinary cases – where it would not be irrational for the thinker to have less than full confidence in her reliability – she should, in fact, reduce her degree of belief. Correlatively, she should reduce her degree of confidence in her first-order beliefs about the domain.

This view fits well with general considerations concerning explanation and theory choice. It also explains our attitude towards the discovery of irrelevant factors – and in particular, the "unsettled feelings" that they provoke. I conclude that in many cases, when we discover an irrelevant causal factor of a belief, we should lower our degree of confidence in the belief, even when we have been living up to our standards of reasoning.[18]

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